## ABSTRACT

A reception weight calculation section 203 calculates reception weights  $W_1$  and  $W_2$  every antenna using an optimal directional control method in order to improve interference cancellation effect, an arrival direction estimation section 204 estimates a direction of arrive of a received signal for each antenna to calculate steering vectors  $S_1$  and  $S_2$  for each antenna, and a replica weight calculation section 211 calculates replica weights  $W_{r1}$  and  $W_{r2}$  using the reception weights  $W_1$ ,  $W_2$  and steering vectors  $S_1$ ,  $S_2$ .